UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/315,973	05/21/1999	SHASHANK MERCHANT	50100-783	7187

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EXAMINER
LY, ANH VU H

ART UNIT	PAPER NUMBER
2667	

DATE MAILED: 10/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _12 August 2003_ .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-19_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-6 and 14-18_ is/are rejected.

7)☒ Claim(s) _7-13 and 19_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4)☐ Interview Summary (PTO-413) Paper No(s). _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: .

DETAILED ACTION

Response to Amendment

1.   This communication is in response to applicant's amendment filed August 12, 2003.

Claims 1-19 are pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

2.   Claims 1-6 and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Gridley (US Patent No, 6,522,656) in view of Murthy et al (US Patent No. 5,515,376).

With respect to claim 1, Gridley discloses in Figure 1, an internal architecture of an

Ethernet switch comprising four LAN cards 100A-100D each have eight Ethernet ports P1-P8

for sending and receiving Ethernet packets (a plurality of ports for receiving and transmitting

data packets). Gridley discloses in Figs. 2-3, the relationship of a LAN card and a system card

for determining and directing the received packets through the correct output LAN card and ports

(a decision making engine responsive to received data packets for directing the received data

packets to the ports selected for transmission of the received data packets). Gridley discloses in

Fig. 2, each LAN card comprising a packet RAM 135 for storing received packets (a plurality of

queuing devices corresponding to the plurality of ports for queuing data blocks representing the

data packets received by the corresponding ports). Gridley discloses (col. 4, line 2-19) that the

address processor 220, as illustrated in Fig. 3, updates and accesses an address RAM 225, which

contains an address look-up table and other forwarding related decision tables including port

states (logic circuitry responsive to the plurality of queuing devices for processing the data

blocks in accordance with a prescribed algorithm to determine destination information).

Wherein, the look-up tables indicate to which port P1-P8 of which LAN card 100A-100D a

particular packet must be forwarded to reach the device indicated by the destination address

contained in that packet's header (a forwarding circuit responsive to the logic circuitry for

identifying at least one transmit port).

Gridley does not disclose a traffic capture mechanism for enabling one port to output data

transferred via selected ports of plurality of ports.

Murthy discloses (col. 2, lines 30-34) monitoring of any or all network segments

(multiple selected ports) on a multi-port bridge or router may be carried out from a network

segment on one port, referred to as a monitoring port (a traffic capture mechanism for enabling

one port to output data transferred via multiple other selected ports of plurality of ports).

Therefore, it would have been obvious to one having ordinary skill in the art at the time

the invention was made to include the feature of monitoring data from any or all network

segments through a monitoring port in Gridley's switching network, as suggested by Murthy, to

monitor data packets and collect related information for network analysis.

With respect to claims 2 and 3, Gridley discloses an Ethernet switch for data

communications between network stations. Gridley does not disclose one port is a sniffer port

for connecting to a probe for monitoring data traffic. Murthy discloses (col. 2, lines 40-44) that

to carry out monitoring, a network monitor may be connected to the monitoring port (sniffer

port) and will thus be able to view traffic just as it were connected directly to a monitored port

(one port is a sniffer port for connecting a probe for monitoring data traffic). Therefore, it would

have been obvious to one having ordinary skill in the art at the time the invention was made to

include the feature of connecting a network monitor to the monitoring port to view traffic of the

monitored port in Gridley's switching network, as suggested by Murthy, to monitor data packets

and collect related information for network analysis.

With respect to claim 4, Gridley discloses an Ethernet switch for data communications

between network stations. Gridley does not disclose a sniffer port configuration circuit for

selecting a sniffer port among plurality of ports. Murthy discloses in Fig. 1, port 4 is chosen as

the monitoring port among a plurality of ports of the bridge (a sniffer port configuration circuit

for selecting the sniffer port among plurality of ports). It would have been obvious to one having

ordinary skill in the art at the time the invention was made to include the feature of selecting a

monitoring port among plurality of ports in Gridley's switching network, as suggested by

Murthy, to monitor data packets and collect related information for network analysis.

With respect to claim 5, the limitation recited in claim 5 is addressed in the rejection of

parent claim 1. Wherein, Murthy discloses (col. 2, lines 30-34) monitoring of any or all network

segments (multiple selected ports) on a multi-port bridge or router may be carried out from a

network segment on one port, referred to as a monitoring port (a sniffed port configuration

circuit for selecting multiple sniffed ports among a plurality of ports).

With respect to claim 6, Gridley discloses an Ethernet switch for data communications

between network stations. Gridley does not disclose sniffer port configuration circuit is

configured to enable and disable monitoring of data traffic on multiple sniffed ports. Murthy

discloses (col. 18, lines 30-35 and Fig. 1) that port monitoring is controlled from the supervisory

access terminal 12. The network manager may identify monitored ports 3 and monitoring ports

10. When port monitoring is enabled, packets associated with the monitored ports 3 will be

forwarded to monitoring ports 10 (configured to enable and disable monitoring of data traffic on

multiple sniffed ports). It would have been obvious to one having ordinary skill in the art at the

time the invention was made to include the feature of controlling the process of port monitoring

in Gridley's switching network, as suggested by Murthy, to monitor data packets and collect

related information for network analysis.

With respect to claims 14-18, Gridley discloses in Figure 1, an internal architecture of an

Ethernet switch comprising four LAN cards 100A-100D each have eight Ethernet ports P1-P8

for sending and receiving Ethernet packets (a communication network having a plurality of ports

for receiving and transmitting data packets). Gridley discloses in Figs. 2-3, the relationship of a

LAN card and a system card for determining and directing the received packets through the

correct output LAN card and ports (a decision making engine for controlling data forwarding

between the ports). Gridley discloses in Fig. 2, each LAN card comprising a packet RAM 135

for storing received packets (placing data blocks representing received data packets in a plurality

of data queues to be processed by the decision making engine). Gridley discloses (col. 4, line 2-

19) that the address processor 220, as illustrated in Fig. 3, updates and accesses an address RAM

225, which contains an address look-up table and other forwarding related decision tables

including port states (processing data queues by logic circuitry in accordance with a prescribed

algorithm to determine destination information). Wherein, the look-up tables indicate to which

port P1-P8 of which LAN card 100A-100D a particular packet must be forwarded to reach the

device indicated by the destination address contained in that packet's header (identifying at least

one port for transmitting data packets based on the destination information).

Gridley does not disclose selecting multipled sniffed ports among the plurality of ports

for monitoring the data packets transferred via the sniffed ports and selecting a sniffer port

among the plurality of ports to provide output of the data packets transferred via the sniffed

ports. Murthy discloses (col. 2, lines 30-34) monitoring of any or all network segments (multiple

selected ports) on a multi-port bridge or router may be carried out from a network segment on

one port, referred to as a monitoring port (selecting multipled sniffed ports among the plurality of

ports for monitoring the data packets transferred via the sniffed ports and selecting a sniffer port

among the plurality of ports to provide output of the data packets transferred via the sniffed

ports).

Therefore, it would have been obvious to one having ordinary skill in the art at the time

the invention was made to include the feature of monitoring data from any or all network

segments through a monitoring port in Gridley's switching network, as suggested by Murthy, to

monitor data packets and collect related information for network analysis.

Allowable Subject Matter

3.   Claims 7-13 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

4.   Applicant's arguments filed August 12, 2003 have been fully considered but they are not persuasive.

Applicant argues on page 3 that the packet RAM 135 of Gridley does not serve as the plurality of queuing devices corresponding to the plurality of ports for queuing data blocks representing data packets received by the corresponding ports of the plurality of ports for receiving and transmitting data packets. Further, applicant argues that one skilled in the art of data communications would understand that the buffering data packets of Gridley does not involve queuing data blocks representing the data packets, as claim 1 recites, or placing data blocks representing received data packets in a plurality of data queues, as claim 14 requires.

Examiner respectfully disagrees, as shown in Fig. 2, Gridley discloses packet RAM 135, which serves as a packet buffer for storing packets received in through each of the ports P1-P8. Applicant should understand that the packet buffer 135 is not only served for a particular port but all of the ports of the Ethernet switch. Therefore it is a shared packet buffer. Furthermore, since it is a shared packet buffer, such buffer should contain smaller portions of memory for storing data packets received/transmitted through the ports. Therefore, it is reasonable to consider the packet buffer or packet RAM 135 as plurality of queuing devices corresponding to the plurality of ports for queuing data blocks representing the data packets received by the corresponding

ports. Even though, Gridley does not disclose the internal architecture of the packet buffer 135, one skill in the art should understand that the buffer contains smaller portions of memory for storing data packets since it is a shared packet buffer.

Applicant argues on page 4 that the address processor 220 is not responsive to the plurality of queuing devices for processing the data blocks placed in data queues in accordance with a prescribed algorithm to determine destination information, as claims 1 and 14 require.

Examiner respectfully disagrees, Gridley discloses (col. 4, line 2-19) that the address processor 220, as illustrated in Fig. 3, updates and accesses an address RAM 225, which contains an address look-up table and other forwarding related decision tables including port states. Wherein, the look-up tables indicate to which port P1-P8 of which LAN card 100A-100D a particular packet must be forwarded to reach the device indicated by the destination address contained in that packet's header. Applicant should understand that if the switch does not receive any data packets, store the data packets, then the functions such as forwarding decisions should not be happened at all. Therefore, address processor 220 is responsive to the plurality of queuing devices for processing data blocks in data queues in accordance with a prescribed algorithm to determine destination information.

Applicant further indicates on page 5 that Gridley suggests avoiding data monitoring mechanism. Examiner respectfully disagrees, Gridley does not say anything about data monitoring is avoided. It is a merely a statement by the applicant.

Gridley discloses (col. 4, lines 20-33) that additionally, the system card 200 also contains a system controller for monitoring the operation of each of the LAN cards. Generally, the system controller monitors the health of the Ethernet switch in general, such as the crashing or improper

operation of any one of the LAN cards. It also keeps system statistics regarding throughput and

packets destinations and sources along with any security considerations.

Since Gridley mentions about monitoring operation within the switch but does not

disclose a traffic capture mechanism for enabling one port to output data transferred via selected

ports of plurality of ports. While, Murthy discloses a method for monitoring of any or all

network segments on a multi-port bridge or router may be carried out from a network segment on

one port, referred to as a monitoring port. Therefore, it would have been obvious to one having

ordinary skill in the art at the time the invention was made to include the feature of monitoring

data from any or all network segments through a monitoring port in Gridley's switching network,

as suggested by Murthy, to monitor data packets and collect related information for network

analysis.

Conclusion

5.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

6.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Anh-Vu H Ly whose telephone number is 703-306-5675. The

examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chi Pham can be reached on 703-305-4378. The fax phone number for the

organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703-305-4750.

avl

CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600